



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/534,961

05/16/2005

Masahiko Kadokura

10873.1601USWO

1695

53148

7590

06/22/2010

HAMRE, SCHUMANN, MUELLER & LARSON P.C.

P.O. BOX 2902

MINNEAPOLIS, MN 55402-0902

EXAMINER

CATTUNGAL, SANJAY

ART UNIT

PAPER NUMBER

3768

MAIL DATE

DELIVERY MODE

06/22/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/534,961	Applicant(s) KADOKURA, MASAHIKO	
	Examiner SANJAY CATTUNGAL	Art Unit 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

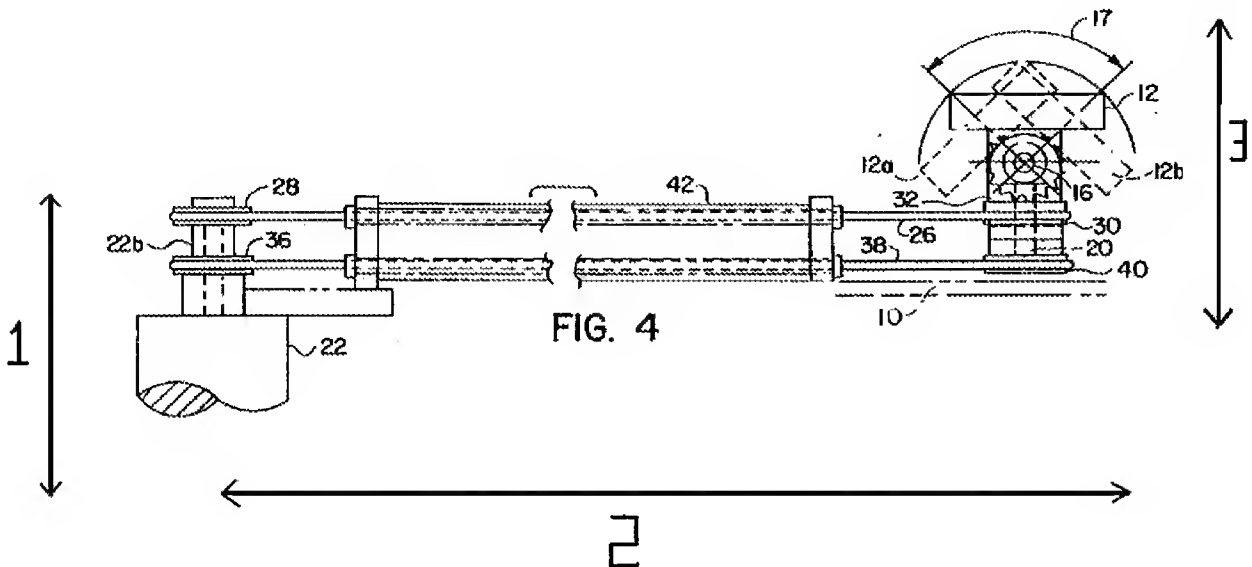
2. **Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,255,684 to Rello in view of U. S. Patent No. 6,840,938 to Morley et al.**

3. Regarding **Claims 1 and 6**, Rello teaches an ultrasonic probe, comprising an inserting portion to be inserted into a body cavity (Figs. 2 and 4); and a grip portion held by an operator outside of the body cavity (Figs. 2 and 4), wherein the inserting portion includes a transducer unit for transmitting and receiving an ultrasonic wave (Figs. 2 and 4 elements 12), a rotation axis provided in the transducer unit, and a swing mechanism for swinging the transducer unit around the rotation axis as a center axis (Abstract and Figs. 2 and 4), and the grip portion includes a motor for driving the swing mechanism (Figs. 2 and 4 element 22), the swing mechanism includes a shaft connected to the motor (Figs. 2 and 4 element 22b), a first pulley directly connected an end portion of the shaft different from an end portion connected to the motor (Figs. 2 and 4 element 36), a second pulley coaxially provided at the rotation axis (Figs. 2 and 4 element 40), and a

Art Unit: 3768

belt connecting the first pulley and the second pulley (Figs. 2 and 4 element 38), and rotational movement of the motor is transmitted to the transducer unit via the shaft, the first pulley, the belt, and the second pulley (Abstract, Figs. 2 and 4).

4. Rello further teaches that the shaft is oriented such that its longitudinal direction is parallel to a direction in which the motor and the transducer is connected (fig. 2 and fig. 4).



5. Rello reference fig. 2 and fig. 4, as shown has three longitudinal axis as shown in the figure above using the three arrows. Axis 1 is the longitudinal direction of the shaft 22b. Axis 2 is the direction between the pulleys. Axis 3 is the longitudinal direction of shaft 20. Shaft 20 and Shaft 22b are parallel to each other. The claim recites that the shaft is oriented such that the longitudinal direction (Axis 1) is parallel to a direction in

Art Unit: 3768

which the motor and the transducer is connected. Since the motor and transducer are connected via Axis 2 and Axis 3. Taking the broadest reasonable interpretation Axis 3 is parallel to Axis 1 as such the claim limitations have been met.

6. Rello does not expressly teach the use of a wire to engage the pulleys.

7. Morley teaches the use of cables to engage the pulleys (Fig. 4b).

8. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Rello with a setup to use cables to engage the pulley as taught by Morley, since the use of cables/wires/belts with pulleys is well known in the art as they are obvious variants of each other.

9. Regarding **Claim 2**, Morley teaches using pulley of the same diameter (Fig. b element 94).

10. Regarding **Claims 3 and 4**, Morley teaches using pulleys to change the direction of motion (fig. 4b)

11. Regarding **Claim 5**, Morley teaches use of a third pulley to change the direction in which the wire is moved perpendicularly (Fig. 4b).

12. Regarding **Claim 6**, Morley teaches a groove on the peripheral surface of the first pulley and the second pulley (Fig. 4b element 94).

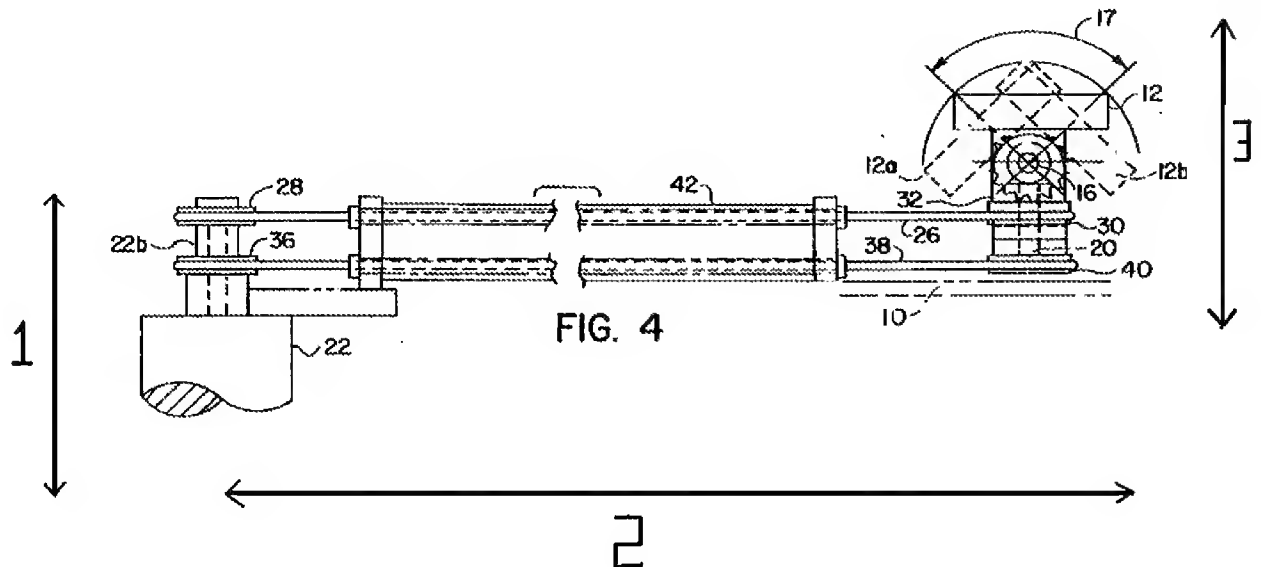
Response to Arguments

13. Applicant's arguments filed 03/24/2010 have been fully considered but are not persuasive.

Art Unit: 3768

14. Applicant argues that Rello does not teach that the shaft is oriented such that its longitudinal direction is parallel to a direction in which the motor and the transducer is connected.

15. Examiner would like point out that Rello further teaches that the shaft is oriented such that its longitudinal direction is parallel to a direction in which the motor and the transducer is connected (figs. 2 and 4).



16.

17. Rello reference fig. 2 and fig. 4, as shown has three longitudinal axis as shown in the figure above using the three arrows. Axis 1 is the longitudinal direction of the shaft 22b. Axis 2 is the direction between the pulleys. Axis 3 is the longitudinal direction of shaft 20. Shaft 20 and Shaft 22b are parallel to each other. The claim recites that the shaft is oriented such that the longitudinal direction (Axis 1) is parallel to a direction in

Art Unit: 3768

which the motor and the transducer is connected. Since the motor and transducer are connected via Axis 2 and Axis 3. Taking the broadest reasonable interpretation Axis 3 is parallel to Axis 1 as such the claim limitations have been met, and the rejection is made **FINAL**.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

19. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **SANJAY CATTUNGAL** whose telephone number is (571)272-1306. The examiner can normally be reached on Monday-Friday 9-5.

Art Unit: 3768

21. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

22. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SANJAY CATTUNGAL/
Examiner, Art Unit 3768

/Long V Le/
Supervisory Patent Examiner, Art Unit 3768